



Agency Docket No. 09799910-0034

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)	Group Art Unit: 1645
)	
Paula J. BATES)	Examiner:
)	
Application No. 10/607,455)	
)	
Filed: June 26, 2003)	
)	
For: A Method for the Detection of)	
Apoptosis)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT
WITHIN THREE MONTHS OF FILING OR
BEFORE MAILING OF FIRST OFFICE ACTION (37 C.F.R. section 1.97(b))**

**IDENTIFICATION OF TIME OF FILING THE ACCOMPANYING
INFORMATION DISCLOSURE STATEMENT**

The information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. 37 C.F.R. section 1.97(b).

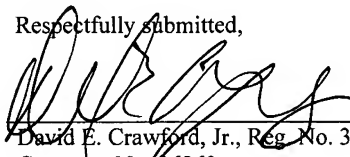
Cite numbers 27 (Martelli) and 34 (Rosenthal) were cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. 37 C.F.R. Section 1.97(e)(1). A copy of the International Search Report, mailed on November 13, 2003, is enclosed.

Transmittal of Information Disclosure Statement
Page 2

The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 C.F.R. section 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists.

The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.

Dated: 11 FEB 04

Respectfully submitted,

By: _____
David E. Crawford, Jr., Reg. No. 38,118
Customer No. 26263
314.259.5810



Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 4

Complete if Known

Application Number	10/607,455
Filing Date	June 26, 2003
First Named Inventor	Paula J. Bates
Group Art Unit	1645
Examiner Name	
Attorney Docket No.	09799910-0034

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	1	US-5,925,334	07-20-1999	Rubin et al.	
	2	US-5,932,475	08-03-1999	Bandman et al.	
	3	US-6,048,703	04-11-2000	Siman et al.	
	4	US-6,291,643	09-18-2001	Zou et al.	
	5	US-6,325,785	12-04-2001	Babkes et al.	
	6	US-6,339,075	01-15-2002	King et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
	7	WO 00/61597	10-19-2000	UAB Research Foundation		<input type="checkbox"/>

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

23131546V-1

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Please type a plus sign (+) inside this box ☐

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control no.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known	
		Application Number	10/607,455
		Filing Date	June 26, 2003
		First Named Inventor	Paula J. Bates
		Group Art Unit	1645
		Examiner Name	
Sheet 2	of 4	Attorney Docket No. 09799910-0034	
OTHER ITEMS – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	8	BATES et al., "Antiproliferative Activity of G-rich Oligonucleotides Correlates with Protein Binding," J. Biol. Chem., 1999, pp. 26369-26377, Vol. 274.	
	9	BISCOTTI et al., "Apoptotic Bodies: A Consistent Morphologic Feature of Endocervical Adenocarcinoma in situ," Am. J. Surg. Pathol., 1998, pp. 434-439, Vol. 22.	
	10	CALLEBAUT et al., "Identification of V3 Loop-binding Proteins as Potential Receptors Implicated in the Binding of HIV Particles to CD4+ Cells," Biol. Chem., 1998, pp. 21988-21997, Vol. 273.	
	11	CHOI et al., "Apoptosis and Nuclear Shapes in Benign Prostate Hyperplasia and Prostate Adenocarcinoma: Comparison with and Relation to Gleason Score," Int. J. Urol., 1999, 13-18, Vol. 6.	
	12	COQUERET et al., "Functional Interaction of STAT3 Transcription Factor with the Cell Cycle Inhibitor p21 ^{WAF1/CIP1/SDI1} ," J. Biol. Chem., 2000, pp. 18794-18800, Vol. 275.	
	13	DAVIS et al., Staining of Cell Surface Human CD4 with 2'-F-pyrimidine-containing RNA Aptamers for Flow Cytometry," Nucl. Acids Res., 1998, pp. 3915-3924, Vol. 26.	
	14	DERENZINI, "The AgNORs," Micron., 2000, pp. 117-120, Vol. 31.	
	15	FACOMPARE et al., "Apoptotic Response of HL-60 Human Leukemia Cells to the Antitumor Drug NB-506, a Glycosylated Indolocarbazole Inhibitor of Topoisomerase 1," Biochem. Pharmacol., 2001, pp. 299-310, Vol. 61.	
	16	GAUTIER et al., "Production and Characterisation of a Monoclonal Antibody Specific for Apoptotic Bodies Derived from Several Tumour Cell Lines," J. Immunol. Methods., 1999, pp. 49-58, Vol. 228.	
	17	GAVRIELI et al., "Identification of Programmed Cell Death in situ Via Specific Labeling of Nuclear DNA Fragmentation," J. Cell Biol., 1992, pp. 493-501, Vol. 119.	
	18	GINISTRY et al., "Structure and Functions of Nucleolin," J. Cell Sci., 1999, pp. 761-772, Vol. 112.	
	19	HOLDENRIEDER et al., "Nucleosomes in Serum of Patients with Benign and Malignant Diseases," Int. J. Cancer, 2001, pp. 114-120, Vol. 95.	
	20	HOLDENRIEDER et al., "Circulating Nucleosomes in Serum," Ann. N.Y. Acad. Sci., 2001, pp. 93-102, Vol. 945.	
	21	HOLDENRIEDER et al., "Nucleosomes in Serum as a Marker for Cell Death," Clin. Chem. Lab. Med., 2001, pp. 596-605, Vol. 39.	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
Application Number		10/607,455	
Filing Date		June 26, 2003	
First Named Inventor		Paula J. Bates	
Group Art Unit		1645	
Examiner Name			
Attorney Docket No.		09799910-0034	
Sheet	3	of	4
OTHER ITEMS – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	22	KERR et al., "Apoptosis: A Basic Biological Phenomenon with Wide-Ranging Implications in Tissue Kinetics," Br. J. Cancer, 1972, pp. 239-257, Vol. 26.	
	23	KIM et al., "A Micro Double Capillary Method for Rheologic Measurements of Lower Airway Secretions," Bull. Eur. Physiopathol. Respir., 1982, pp. 915-927, Vol. 18.	
	24	LANGER et al., "Enzymatic Synthesis of Biotin-Labeled Polynucleotides: Novel Nucleic Acid Affinity Probes," Proc. Natl. Acad. Sci. USA., 1981, pp. 6633-6637, Vol. 78.	
	25	LEITINGER et al., "ADP-Ribosylation of Nucleolar Proteins in HeLa Tumor Cells," J. Cell. Biochem., 1993, pp. 153-158, Vol. 52.	
	26	LICHTENSTEIN et al., "Circulating Nucleic Acids and Apoptosis," Ann. N.Y. Acad. Sci., 2001, pp. 239-249, Vol. 945.	
	27	MARTELLI et al., "Biochemical and Morphological Characterization of the Nuclear Matrix from Apoptotic HL-60 Cells," J. Cell. Biochem., 1999, pp. 35-46, Vol. 72.	
	28	MARTIN et al., "Protease Activation During Apoptosis: Death by a Thousand Cuts?," Cell, 1995, pp. 349-52, Vol. 82.	
	29	MCNICOL et al., "Optimizing Immunohistochemistry: Antigen Retrieval and Signal Amplification," Histopathology, 1998, pp. 97-103, Vol. 32.	
	30	NORGAARD et al., "FAB M4 and High CD14 Surface Expression is Associated with High Cellular Resistance to Ara-C and Daunorubicin: Implications for Clinical Outcome in Acute Myeloid Leukaemia," Eur. J. Haematol., 2001, pp. 221-229, Vol. 67.	
	31	ORFAO et al., "General Concepts About Cell Sorting Techniques," Clin. Biochem., 1996, pp. 5-9, Vol. 29.	
	32	PINTON et al., "The Ca ²⁺ Concentration of the Endoplasmic Reticulum is a Key Determinant of Ceramide-Induced Apoptosis: Significance for the Molecular Mechanism of Bcl-2 Action," Embo. J., 2001, pp. 2690-2701, Vol. 20.	
	33	ROBINSON et al., "Antigen Retrieval in Cells and Tissues: Enhancement with Sodium Dodecyl Sulfate," Histochem. Cell Biol., 2001, pp. 119-130, Vol. 116.	
	34	ROSENTHAL et al., "Detection of DNA Breaks in Apoptotic Cells Utilizing the DNA Binding Domain of poly(ADP-ribose) Polymerase with Fluorescence Microscopy," Nucl. Acids Res., 1997, pp. 1437-1441, Vol. 25.	
	35	SCHIMMER et al., "Receptor- and Mitochondrial-Mediated Apoptosis in Acute Leukemia: A Translational View," Blood, 2001, pp. 3541-3553, Vol. 98.	
	36	SCHMIDT-ACEVEDO et al., "LE Cells' Result from Phagocytosis of Apoptotic Bodies Induced by Antinuclear Antibodies," J. Autoimmun., 2000, pp. 15-20, Vol. 15.	
	37	SCOVASSI et al., "Poly(ADP-ribosylation) and Apoptosis," Mol. Cell Biochem., 1999, pp. 125-137, Vol. 199.	
	38	SOHN et al., "Caspase-3/CPP32 Immunoreactivity and its Correlation with Frequency of Apoptotic Bodies in Human Prostatic Carcinomas and Benign Nodular Hyperplasias," Histopathology, 2000, pp. 555-560, Vol. 37.	



Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 4 of 4

Complete if Known

Application Number	10/607,455
Filing Date	June 26, 2003
First Named Inventor	Paula J. Bates
Group Art Unit	1645
Examiner Name	
Attorney Docket No.	09799910-0034

OTHER ITEMS – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	39	SOROKINA et al., "Cloning and Preliminary Characterization of a Calcium-binding Protein Closely Related to Nucleolin on the Apical Surface of Inner Medullary Collecting Duct Cells," J. Biol. Chem., 1999, pp. 27491-27496, Vol. 274.	
	40	SRIVASTAVA et al., "Molecular Dissection of Nucleolin's Role in Growth and Cell Proliferation: New Insights," Faseb. J., 1999, pp. 1911-1922, Vol. 13.	
	41	SUTTON et al., "Initiation of Apoptosis by Granzyme B Requires Direct Cleavage of Bid, But Not Direct Granzyme B-mediated Caspase Activation," J. Exp. Med., 2000, pp. 1403-1413, Vol. 192.	
	42	THORNBERRY et al., "Caspases: Enemies Within," Science, 1998, pp. 1312-1316, Vol. 281.	
	43	TORMANEN et al., "Enhanced Apoptosis Predicts Shortened Survival in Non-Small Cell Lung Carcinoma," Cancer Res., 1995, pp. 5595-5602, Vol. 55.	
	44	TUTEJA et al., "Nucleolin: A Multifunctional Major Nucleolar Phosphoprotein," Crit. Rev. Biochem. Mol. Biol., 1998, pp. 407-436, Vol. 33.	
	45	WYLLIE et al., "Cell Death: The Significance of Apoptosis," Int. Rev. Cytol., 1980, pp. 251-306, Vol. 68.	
	46	XU et al., "Inhibition of DNA Replication and Induction of S Phase Cell Cycle Arrest by G-Rich Oligonucleotides," J. Biol. Chem., 2001, pp. 43221-43230, Vol. 276.	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--